



Description

Fully transistorized and battery-operated, $\text{\textcircled{hp}}$ 204B Oscillator is extremely useful for both field and laboratory work. Internal heat production is small, resulting in unusually low warmup drift. Stable, accurate signals are instantly available over a frequency range from 5 cps to 560 kc.

Loads referenced either above or below ground can be driven by the versatile Model 204B. Its output is fully floating, isolated from power line ground and instrument chassis. There is excellent frequency stability even with rapidly changing loads; low impedance circuits drive the 600-ohm output, effectively isolating the oscillator stage. Stability is typically better than 5 parts in 10^4 , even at the least stable frequency (560 kc). In the environment where the tests shown in Figure 1 were performed, the temperature varies 3° to 4°C daily. The predominant cause of the frequency change was because of this temperature variation. Short term stability over a few minutes at constant temperature is typically better than 0.001% at 400 cps.

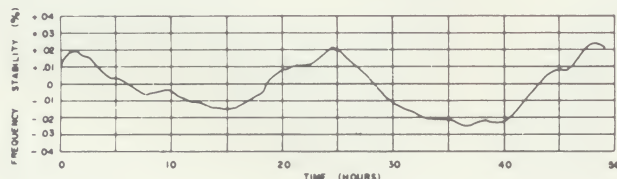


Figure 1. Typical frequency stability characteristics at 500 kc.

Flat frequency response of Model 204B provides further convenience of operation. At all settings of the dial and range switch the output is flat within $\pm 3\%$.

The small size, light weight and battery operation make $\text{\textcircled{hp}}$ 204B a portable oscillator which can easily be carried in

Advantages:

- Low noise
- Compact, lightweight, easily carried
- Completely transistorized
- Battery operated, optional ac power pack
- Floating output; isolated from ground and chassis
- Wide frequency range, 5 cps to 560 kc
- Logarithmic frequency dial

Uses:

- Portable wide-range oscillator
- Laboratory supply of low-noise signals

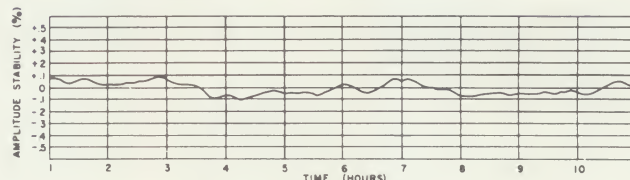


Figure 2. Typical amplitude stability.

one hand. If portable operation is not desired, the 204B can be ordered with an ac supply in lieu of batteries. Furthermore, kits for field installation are available for converting the battery version to the ac version and vice versa. This oscillator is an excellent companion for $\text{\textcircled{hp}}$ 403A, a battery-operated voltmeter. In Model 204B the famous Hewlett-Packard RC oscillator bridge is tuned by a variable resistance; range switching employs precision fixed capacitors.

The new modular cabinet allows easy access to the instrument chassis and makes an attractive, practical unit for portable or bench use. A rack mount adapter holds three Model 204B Oscillators or other instruments of the new modular design.

Specifications

Frequency Range: 5 cps to 560 kc, in 5 ranges, vernier control.

Dial Accuracy: $\pm 3\%$.

Frequency Response: $\pm 3\%$, with rated load.

Output Impedance: 600 ohms.

Output: 10 milliwatts (2.5 v rms) into 600 ohms; 5 v rms open circuit. Completely floating.

Output Control: Continuously variable bridged "T" attenuator with at least 40 db range.

Distortion: Less than 1%.

Noise: Less than 0.05%, ac or battery operated.

Power Source: 4 batteries at 6.75 volts each, 7 ma drain, life at least 300 hours.

Dimensions: 6-3/32" high, 5 1/8" wide, 8" deep (383,3 x 130,1 x 203,2 mm).

Weight: Net 7 lbs. (3 kg). Shipping 11 lbs. (5 kg).

Available: 204B-11A AC Power Supply for field installation, \$55.00. 204B-64B Battery Kit for field installation, \$25.00.

► **Price:** $\text{\textcircled{hp}}$ 204B (with batteries), \$315.00.

Option: 01. AC power supply installed in lieu of batteries, add \$35.00.

Option: 02. Rechargeable batteries with recharging circuit self-contained for ac or dc operation, add \$75.00.

Prices f.o.b. factory

Data subject to change without notice 7/27/64

► Indicates change from prior specifications 10/10/64

